Serum levels of neopterin in patients with hepatitis C virus related chronic liver disease

Ahmed Mohamed Abo-Elrasaf Alnaqeeb, Mahasen Abo-El Rahman Mahrouk, Naglaa Ali Zayed, Noha Hony Shareen,
Cairo University
Giza, Egypt

Abstract

Background: Chronic hepatitis C infection and cirrhosis have slowly progressive course and accompanied by liver inflammation and fibrosis. Increased serum neopterin level has been detected in patients having chronic hepatitis C disease. Neopterin is produced by monocytes/macrophages when activated by interferon-gamma secreted from T lymphocytes as a part of body immune response against hepatitis C viral infection. Objectives: To assess the changes in the serum neopterin level in Egyptian patients having chronic liver disease due to hepatitis C virus infection and cirrhosis, and to correlate the neopterin levels with changes in the laboratory parameters and pathological stages of liver disease. Methods: 85 subjects were included; 40 patients having chronic hepatitis C as group I, 30 patients having cirrhosis as group II and a control group included 15 healthy subjects as group III. Results: Serum neopterin level was higher in patients with chronic hepatitis C disease and in patients with liver cirrhosis compared to healthy individuals. Also liver cirrhosis patients had higher serum neopterin level than patients with chronic hepatitis C disease. Conclusion: A correlation was found between serum neopterin level and severity of chronic hepatitis C and cirrhosis.

Keywords
Serum neopterin, Chronic hepatitis C disease, Cirrhosis immune response,